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D-80469 München (DE)(54) **Station-to-station full duplex communication in a token ring local area network.**

(57) A technique for establishing and maintaining full duplex communication between two stations connected to a token ring network, without dedicated connections. In an auto-configuration full duplex mode of operation, each station ascertains (78) whether there are only two active stations on the network and, if so, performs an exchange (82) of frames with the other station to establish full duplex communication. Once established, full duplex communication (84) can proceed at a greater bandwidth than communication in a token ring network, and without latency delays and distance limitations associated with token ring networks. Periodic checks (88) are made by each station in full duplex communication, to ascertain if the other station is still participating or if any third station has become active. In either case, stations in the auto-configuration mode revert to token ring mode automatically. In a variant form of the invention, stations can operate in a fixed full duplex mode, in which the detection of tokens or third stations are merely reported and do not necessarily result in reversion to the token ring mode.

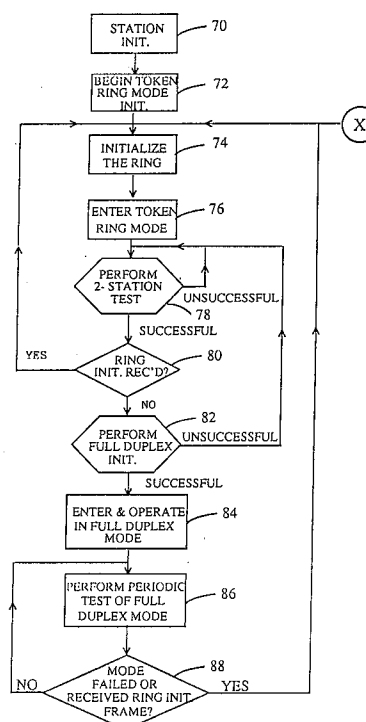


FIG. 6

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EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|--|---|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int. Cl.5) |
| A | US-A-4 675 671 (ISHIZUKA ET AL.) * column 2, line 8 - line 28; claim 1 * --- | 1, 3, 8 | H04L12/42 H04L5/14 |
| A | PROCEEDINGS DISTRIBUTED COMPUTING, IEEE COMPCON 1980 23 September 1980, WASHINGTON pages 507 - 515 T. C. WILSON & C. B. SILIO, JR. 'Distributed control of ring networks using a "playthrough" protocol' * page 507, line 93 - page 508, line 44 * --- | | |
| A | IBM-TDB vol. 32, no. 6B, November 1989, ARMONK, NY, US pages 64 - 65 , XP73662 'Multi-token frame formats and protocol for token ring.' * whole article * ----- | | |
| | | | TECHNICAL FIELDS SEARCHED (Int. Cl.5) |
| | | | H04L |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 10 SEPTEMBER 1993 | Examiner VEEN G.E. |
| CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application I : document cited for other reasons & : member of the same patent family, corresponding document | | | |